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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,227	02/26/2002	Atsushi Abe	JP20010056US2	4748

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EXAMINER

BULLOCK JR, LEWIS ALEXANDER

ART UNIT	PAPER NUMBER
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2195

DATE MAILED: 07/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/083,227

Applicant(s)

ABE ET AL.

Examiner

Lewis A. Bullock, Jr.

Art Unit

2195

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-4, 10-13, 16-22 and 25-27 is/are rejected.
7) ☒ Claim(s) 5-9, 14, 15, 23 and 24 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This application has been newly assigned to another Examiner.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 10, and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by DAVE (U.S. Patent 6,110,220).

As to claim 10, DAVE teaches a method for controlling execution timing of jobs, comprising: executing a plurality of jobs (col. 7, lines 12-32), wherein the plurality of jobs includes a first job executed at irregular time intervals (aperiodic tasks) and a second job executed at regular time intervals (periodic tasks) (col. 5, lines 37-52; col. 6, lines 49-62); determining a probability distribution in accordance with times at which execution of the first job occurs (via using the algorithm to position the execution slots across the hyperperiod) (col. 7, line 12 – col. 8, line 17; col. 8, lines 19-30); and scheduling execution of the second job in accordance with the probability distribution (col. 6, lines 24-62; col. 16, lines 14-17).

As to claim 11, DAVE teaches setting the starting point of the probability distribution to the time at which the first job has completed execution (via the algorithm executes the aperiodic tasks at the next available execution slot and then the hyperperiod of the system is computed) (col. 7, lines 12-32).

As to claim 13, DAVE teaches determining the probability distribution in accordance with a predetermined number of latest data items in a predetermined last period in the data at approximately the times at which execution of the first job has occurred (via the schedule is determined based on the deadlines such that the algorithm positions its determination for a task along a hyperperiod based on past experience such that if a aperiodic task comes at an inopportune time, the schedule is adjusted or has been accounted for) (col. 7, lines 12-32; col. 8, lines 19-62; col. 10, lines 45-63).

As to claims 1, 2 and 4, reference is made to a system that corresponds to the method of claims 10, 11 and 13 and is therefore met by the rejection of claims 10, 11 and 13 above.

As to claims 19, 20 and 22, reference is made to a computer medium that corresponds to the method of claims 10, 11 and 13 and is therefore met by the rejection of claims 10, 11 and 13 above.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3, 12 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over DAVE (U.S. Patent 6,110,220).

As to claim 12, DAVE teaches determining a probability distribution and scheduling and allocating the time slots based the distribution wherein the distribution takes into consideration the deadline (col. 7, lines 2-32). It would be obvious to one of ordinary skill in the art that the deadline includes time information regarding a time zone, i.e. 10:00 a.m. EST; a week-day or a season, i.e. the date due, 6/23/06 which is summer.

As to claim 3, reference is made to a system that corresponds to the method of claim 12 and is therefore met by the rejection of claim 12 above.

As to claim 21, reference is made to a computer medium that corresponds to the method of claim 12 and is therefore met by the rejection of claim 12 above.

Claim Rejections - 35 USC § 112

5. Claims 16 and 25 recites the limitation "said job execution means" in line 4.

There is insufficient antecedent basis for this limitation in the claim.

Allowable Subject Matter

6. Claims 5-9, 14-18 and 23-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims with the corrections to the 112 issue outlined above.

Response to Arguments

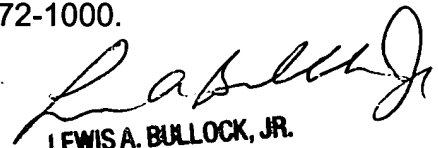
7. Applicant's arguments with respect to claims 1-27 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lewis A. Bullock, Jr. whose telephone number is (571) 272-3759. The examiner can normally be reached on Monday-Friday, 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


LEWIS A. BULLOCK, JR.
PRIMARY EXAMINER

June 23, 2006